

## ABSTRACT OF THE DISCLOSURE

A system and method of serverless peer-to-peer group management and maintenance is presented. Group formation and discovery of private, public, and enumerated groups are provided, as is a method of joining such a peer-to-peer group. Group information management provided by the present invention ensures that each node maintains a current database from the initial joining of the group through the run phase of membership. Group graph maintenance utilizes a group signature to ensure that partitions in a graph may be detected and repaired. The utility of connections within the graph are also monitored so that non-productive connections may be dropped to increase the efficiency of the group. The diameter of the graph is also monitored and adjusted to ensure rapid information transfer throughout the group. A disconnect procedure is used to maintain the graph integrity and prevent partitions resulting from the departure of a group member.

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